SUPPORT DOCUMENT: KENTUCKY PROGRAMS FOR STUDENTS WITH SEVERE HANDICAPS INCLUDING DEAF-BLINDNESS (ALL LEVELS)

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KENTUCKY PROGRAMS FOR STUDENTS WITH SEVERE HANDICAPS INCLUDING DEAF-BLINDNESS

(ALL LEVELS)

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OFFICE OF EDUCATION FOR EXCEPTIONAL CHILDREN
Carlene Gobert Preston Lewis

KENTUCKY DEAF-BLIND STEERING COMMITTEE
AD HOC REVIEW SUBGROUP
Rhonda Budde, West Kentucky Education Cooperative
Nancy Cully, New Perceptions, Inc.
Sue Enoch, Kentucky School for the Blind
Maureen Fitzgerald, Protection and Advocacy
Jan Moseley, Jefferson County Public Schools
Jim O'Brien, Human Development Institute

KENTUCKY SYSTEMS CHANGE PROJECT IN SEVERE HANDICAPS
Harold Kleinert Pam Smith

PROJECT EVAULATOR
June E. Downing, University of Arizona

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PURPOSE OF THE DOCUMENT

This document is the third of a series developed by the Kentucky Department of Education, Office of Education for Exceptional Children. The two other documents are entitled:

- Primary Level Support Document: Kentucky Program of Studies for Students with Moderate and Severe Handicaps (blue)

- Secondary Level Support Document: Kentucky Program of Studies for Students with Moderate and Severe Handicaps (pink)

This third document presents specific applications at all age levels (early childhood, primary, middle and secondary) for teachers working with the most difficult to serve students, those with severe handicapping conditions, as described below.

Principles from the Primary and Secondary Support Documents are incorporated and expanded upon through examples and applications in this document. Such principles include:

* Use of age-appropriate settings, activities and materials
* Opportunities for positive interactions with non-handicapped peers
* Inclusion of community-based instruction as well as school-based instruction
* Instruction addressing life domains: community functioning, recreation and leisure, domestic, and vocational
* Active parent/family involvement
* Goal for maximum participation in natural home, school, work and community settings.

This document represents a departure from traditional developmental curricula which have not proved effective with students having severe handicaps. Instead, the document presents a functional approach for providing services to students with severe handicaps to enhance active participation in the home, school, community and work environments.

STUDENTS WITH SEVERE HANDICAPS

The public schools have seen a tremendous growth in the number of students labelled severely, multiply or profoundly handicapped. This increase can be attributed to a number of factors:

* Legislation mandates a free appropriate public education for all children, regardless of the severity of handicapping condition(s).

* Medical and technological advances enable children with multiple handicaps and/or special health care needs to live beyond customary expectations, enter school and benefit from special education services.

* Child Find practices and heightened parent awareness together help to locate children who, in the past, were not enrolled because they were perceived as being unable to benefit from school due to the severity of handicaps.

Children and adolescents served in programs labelled multihandicapped (MH), severely/profoundly handicapped (S/PH), or home/hospital (H/H) demonstrate a multiplicity of handicapping conditions. For the purposes of this document, the term **SEVERE HANDICAPS** will be used to refer to the conditions which follow. These phrases describe the disabilities exhibited by the student, regardless of the categorical label used with the child or the program:

- severe developmental delays and cognitive impairments,
- motor disabilities which limit voluntary movement,
- sensory impairments, including deaf-blindness,
- speech, language and communication impairments,
- delays or disorders in social and behavioral skills,
- chronic or frequent health care needs

Throughout the document, examples will be used to apply general statements and principles. Below is a description of "Mark", a fictional student with severe handicaps. In various ways, he typifies many of the characteristics listed above regarding students with severe handicaps. There will be references to Mark throughout the document.

MARK IS AN ATTRACTIVE YOUNG MAN (AGE 10) WHO IS VERY CLOSE TO HIS FAMILY. MARK HAD A DIFFICULT BIRTH WHICH LED TO VARIOUS PROBLEMS. MARK ENJOYS MUSIC, ESPECIALLY COUNTRY SINGERS. HE TURNS THE MUSIC UP, PROBABLY DUE TO A MODERATE HEARING IMPAIRMENT. HE USES A SWITCH TO ACTIVATE HIS TAPE RECORDER BECAUSE HE HAS VERY LIMITED USE OF HIS ARMS AND HANDS. MARK ENJOYS PEOPLE, THEIR VOICES AND THEIR PRESENCE. HE TURNS TO LOOK WHEN SOMEONE COMES UP TO HIM AND HE CAN LOOK AT HIS CUP OR BOWL TO SIGNAL THAT HE IS HUNGRY OR THIRSTY. SOMETIMES WHEN NO ONE IS LISTENING TO HIS SIGNALS, MARK BITES ON HIS HAND AND SCREAMS. ALTHOUGH MARK IS VISUALLY ATTENTIVE, HIS EYE DOCTOR ESTIMATES HIS VISION AT 20/800, WHICH MAKES MARK "LEGALLY BLIND". MARK'S FAMILY LIKES TO INCLUDE MARK IN THEIR DAILY ACTIVITIES, AND HIS BROTHER LIKES TO PUSH HIS WHEELCHAIR.

PRINCIPLES OF PROGRAMMING FOR CHILDREN WITH SEVERE HANDICAPS, INCLUDING DEAF-BLINDNESS

BASIC ASSUMPTIONS

Programs designed to meet the needs of students with severe handicaps, including deaf-blindness, are based upon a central principle:

The educational goal is to facilitate students' maximum participation in real life activities.

This goal leads to educational programming which is ACTIVITY-ORIENTED. Four elements are essential to activity-oriented programming:

- "Real life" activities in integrated settings;
- Age-appropriate settings, activities and materials;
- Individual levels of participation;
- Infusion of basic skills.

REAL LIFE ACTIVITIES

ACTIVITY as used here refers to the typical routines or events which describe a person's day - at home, at school, at work, at play. Activities include such events as getting dressed, playing with friends, fixing snacks, grocery shopping, doing chores at home, working in the community. These events occur in natural settings with others who are not handicapped.

Activities provide the setting in which basic skills are taught (motor, sensory, communication, self-care, social, cognition). Individual IEP goals regarding basic skills (e.g. motor, communication, social and sensory skills) can be INFUSED or EMBEDDED into most if not all activities.

FOR EXAMPLE, COOKING IS A FUNCTIONAL AND MOTIVATING ACTIVITY WHICH CAN PROVIDE OPPORTUNITIES FOR MARK TO WORK ON VERY BASIC SKILLS (REACH, GRASP, RESPOND TO AUDITORY CUES, RESPOND TO OTHERS, SHARE MATERIALS, ETC.). IN THE SAME ACTIVITY, MARK'S FRIENDS AND CLASSMATES CAN WORK ON FUNCTIONAL ACADEMICS: MEASURE (MATH), FOLLOW RECIPES (READING), SET THE STOVE TIMER (MATH), ETC.

Before skills are targeted for instruction, the typical activities in which the student is going to participate at home, at school, at work and in the community must be

determined. Identification of these activities is made by the educational team, with primary emphasis on the preferences indicated by the student and his or her family.

Activities for a student are selected based on: (a) age appropriateness, as determined by what non-handicapped same-age peers do in the local community/culture; (b) the settings appropriate to the student's current and future environments; and (c) the family's and the student's preferences.

AGE-APPROPRIATE SETTINGS AND MATERIALS

Appropriate life activities depend on the age of the person.

> FOR EXAMPLE, MIDDLE SCHOOL STUDENTS PARTICIPATE IN SOME ACTIVITIES WHICH ARE APPROPRIATE AT ALL AGES, LIKE MARK AND HIS FRIENDS EATING IN THE CAFETERIA OR AT A RESTAURANT. OTHER ACTIVITES ARE MORE SPECIFIC TO CERTAIN AGES. FOR EXAMPLE, MARK IS BECOMING FAMILIAR WITH CHORES AND WORKS WITH A PARTNER TO WASH SCHOOL TOWELS AT THE LAUNDRY, BUT HE MAY NOT WORK PART-TIME AT THE YMCA UNTIL HE IS A LITTLE OLDER.

A listing of typical activities at different ages is called a **LOCAL CATALOGUE OF ACTIVITIES.** A catalogue is usually organized by type of activity or DOMAIN (domestic, vocational, community, recreation/leisure) and SETTING for the activity (classroom, restaurant, store, hallway, bus).

Sample catalogues of activities have been developed by participants in the Office of Education for Exceptional Children's training programs in severe handicaps: SPLASH (Strategies for Programming Longitudinally for All Severely Handicapped) and SHIPP (Severe Handicaps: Integrated Preschool Programming). Primary and secondary level SPLASH catalogues and early childhood SHIPP catalogues may be obtained and adapted to the local program.

However, any general catalogue must be INDIVIDUALIZED for each student in two ways: (1) by the selection of activities for the student based on family and student preferences; and (2) by the identification of target skills embedded within the activity for each student.

> MARK'S TEACHER HAS COMPILED A CATALOGUE THAT SHE USES AS A GENERAL CHECKLIST WITH HER CLASS. HOWEVER, SHE WORKS WITH EACH FAMILY TO SELECT JUST THE RIGHT ACTIVITIES. FROM THE PREVIOUS EXAMPLE, MARK'S FAMILY WANTED HIM TO HELP DO THE LAUNDRY. IN THAT ACTIVITY, MARK IS WORKING ON REACH AND GRASP OF THE MATERIALS, AS WELL AS SIGNALING HIS PARTNER WHERE TO PUT HIS

TRAVEL CHAIR. HIS PARTNER IS WORKING ON SORTING LIGHT AND DARK CLOTHES AND MEASURING THE SOAP.

LEVEL OF PARTICIPATION

Each student's level of participation in an activity depends on his or her current and developing skills. The degree of independence and the level of skill presently demonstrated by the student define the manner in which a student participates.

The principle of **PARTIAL PARTICIPATION** in normal or typical activities is a critical feature of functional programming. The degree of participation for children with severe handicaps may be very basic.

MARK ENJOYS VIDEO GAMES WITH HIS FRIENDS. HIS PARTICIPATION MAY BE TO EXTEND HIS ARM AT LEAST TWO INCHES TOWARD THE GAME AND TO SIGNAL WITH HIS EYES WHEN HE WANTS HELP TO MOVE THE JOYSTICK.

Although students with severe handicaps may not be able to fully participate, partial participation encourages the development of self-esteem and respect of others. It fulfills the right of students with severe handicaps for presence and involvement in daily, integrated activities.

Selection of activities for students with severe handicaps should not be limited by expectations of whether the child will or will not perform the activity independently.

FOR EXAMPLE, MARK WILL NEED LONG-TERM SUPPORT IN COOKING DUE TO THE SEVERITY OF HIS COGNITIVE AND PHYSICAL HANDICAPS. HOWEVER, COOKING IS INCLUDED IN HIS SCHEDULE BECAUSE IT IS APPROPRIATE FOR HIS AGE, HIS FAMILY WANTS HIM TO BE INVOLVED IN THIS AT HOME, AND HE ENJOYS IT.

Participation is not limited to motor skills or simply physically assisting a student to perform the activity. Rather, participation includes social interactions with others during the activity and communicative interactions regarding choice-making during the activity.

IN THE VIDEO GAME DESCRIBED PREVIOUSLY, MARK RECEIVES PHYSICAL ASSISTANCE TO MOVE THE JOYSTICK. MORE IMPORTANTLY, HOWEVER, HE PARTICIPATES BY COMMUNICATING (SIGNALING WITH HIS EYES TO SHOW WHEN AND HOW MUCH HELP HE WANTS AND FOR WHICH GAME). HE IS SEEN BY HIS FRIENDS AS A PERSON WITH PREFERENCES AND DIGNITY, AND THEY INTERACT WITH HIM ACCORDINGLY.

Availability of these interactions is based upon inclusion in **HETEROGENOUS** groupings with non-handicapped students as well as students with varying degree of handicap. When the setting is limited to a homogenous group including only students with severe handicaps, students are generally less responsive.

INFUSING OR EMBEDDING BASIC SKILLS

BASIC SKILLS are the sensory, motor, self-care, communicative, cognitive and social/behavioral skills that allow participation in functional, age-appropriate activities. Rather than being taught as separate components, instruction in the basic skills should be infused or embedded into real classroom, school, home or community-based activities.

Home, school or community activities and routines are analyzed to determine specific skills needed during these activities. For example, the classroom routine of "DAILY ARRIVAL" provides opportunities to practice many skills in the context of this functional activity.

THE FOLLOWING ARE SOME OF THE SKILLS MARK IS WORKING ON WHICH ARE EMBEDDED INTO "DAILY ARRIVAL":

SUBACTIVITY: GREETING FRIENDS AND TEACHERS
- -respond to visual cues and gestures (communication skill)
- -wave to others (motor skill)
- -smile and acknowlede others (social skill)
- -choose buddy to push wheelchair (social skill)

SUBACTIVITY: EXITING SCHOOL BUS AND ENTERING BUILDING AND CLASSROOM
- -"ask" others to push chair (communication/social skills)
- -indicate direction for the chair while being pushed (mobility/cognitive skills)

SUBACTIVITY: STORING PERSONAL BELONGINGS
- -move arm to help push lunchbox in place (motor skill)
- -identify personal cubbyhole (social/cognitive skills)

SUBACTIVITY: SCHOOL ROUTINES, SUCH AS PURCHASE SUPPLIES
- -select items (communication skill)
- -interact with the "salesperson" (social skill)

Physical caregiving or self-care activities (eating, dressing, going to the bathroom) provide frequent opportunities for acquiring basic skills. All students should be expected to participate in these activities. Care-giving without expectating any student participation can result in learned helplessness and decreased communication. The student learns that physical needs will

be taken care of, without any effort on his or her part and despite any preferences.

TO PARTICIPATE IN SELF-FEEDING, MARK COMMUNICATES HIS CHOICES BY INDICATING WHAT ON HIS PLATE HE WANTS A BITE OF NEXT, WHEN HE WANTS A SIP OF MILK (AS OPPOSED TO A BITE OF FOOD), AND HOW FAST HE IS READY FOR BITES. DURING DIAPERING, MARK PARTICIPATES BY EXTENDING HIS ARM TO HELP PULL THE HANDIWIPE OUT OF THE CONTAINER AND BY SELECTING A BODY POWDER FRANGRANCE FROM TWO CHOICES. HE ALSO ROLLS SLIGHTLY TO MAKE IT EASIER TO LIFT HIM, A SKILL THAT HIS MOTHER APPRECIATES DUE TO HIS SIZE. WHEN HE IS BEING MOVED FROM HIS WHEELCHAIR, HE PARTICIPATES BY MOVING HIS ARM SLIGHTLY TO ASSIST IN GETTING THE SEATBELT UNFASTENED.

The activities and routines identified as occuring naturally in the context of the school day provide opportunities to infuse or embed most if not all basic skills instruction. In addition, the priority activities selected by the parents provide the context for teaching basic skills. This approach allows individualized programming in natural settings (integrated classrooms, regular schools, community settings, home) within the context of age-appropriate activities.

DURING EACH DAY, MARK PARTICIPATES IN REGULAR ROUTINES (ARRIVAL, LUNCH, ETC.) AND ACTIVITIES. ONE OF HIS IEP GOALS IS TO USE AN ARM SWEEP AND GRASP TO GET NEEDED OBJECTS. THIS SKILL IS WORKED ON THROUGHOUT THE DAY DURING EACH OF THE ROUTINES AND ACTIVITIES. IN THESE SAME ACTIVITIES, HIS FRIEND TOM IS WORKING ON HIS OWN IEP OBJECTIVES, WHICH INCLUDE ASKING FOR OBJECTS BY NAME.

COMMON MISCONCEPTIONS

Many people confuse IEP goals with activities. For example, common IEP goals for students with severe handicaps include such skills as reaching, grasping, nodding "yes", and responding to voice. These IEP goals are not in themselves activities, but are skills which students are expected to use during real activities (a means to an end).

In activity-oriented programming, no attempt is made to teach skills in isolated and non-functional settings. Instead, such skills are EMBEDDED into real activities.

FOR EXAMPLE, SALLY IS A STUDENT WITH SEVERE HANDICAPS. HER PARENTS HAVE SET A PRIORITY ON ACTIVITIES WHICH WILL HELP HER MAKE FRIENDS AT SCHOOL. HOWEVER, SALLY DOES NOT MAKE EYE

CONTACT AND DOES NOT SEEM TO RESPOND, IN PART DUE TO HER MOTOR DISABILITIES. HER TEACHER USED TO SET UP A 10-MINUTE PERIOD EACH DAY TO WORK JUST ON EYE CONTACT WITH THE TEACHER. SALLY DID NOT RESPOND VERY WELL AND DID NOT USE THE SKILL OUTSIDE THE CLASSROOM. NOW HER TEACHER WORKS WITH HER ON FUNCTIONAL VISION AND HEAD CONTROL (MAKING EYE CONTACT) EACH DAY AT THE BUS AND OTHER PLACES WHERE SALLY'S PEERS ARE. NATURAL CUES OF PEERS SAYING HER NAME AND REINFORCING HER WHEN SHE LOOKS UP ARE USED. A REASON FOR MAKING EYE CONTACT IS INFUSED INTO MOTIVATING ACTIVITIES.

Another common misconception is that students with severe handicaps are not "ready" (are not aware enough, are not able, or are not responsive enough) to participate in activities appropriate to others the same age, even in activities used with students with mild or moderate handicaps. In activity-oriented programming, all students participate, including those with severe handicaps. However, not every student is expected to participate in the activity in the same way.

TOM, WHO HAS MODERATE HANDICAPS, MAY PARTICIPATE IN DRESSING BY REACHING FULL INDEPENDENCE, WHILE MARK MAY PARTICIPATE BY SELECTING THE COLOR OF THE SHIRT AND/OR BY HELPING TO GRASP THE SHIRT WHILE HE IS BEING DRESSED. SALLY, WHO IS VERY TIGHT (HAS HIGH MUSCLE TONE), MAY PARTICIPATE BY RELAXING ON CUE SO THAT SHE IS READY FOR ASSISTANCE.

A third misconception is that students with severe handicaps learn best in classes including only other students with severe handicaps. The benefits of heterogeneous or mixed groupings are not available when instruction is limited to one-to-one arrangements or to all activities with others having severe handicaps, too.

FOR EXAMPLE, WHEN SALLY IS ONLY WITH OTHERS WHO HAVE SEVERE HANDICAPS, SHE HAS FEW OPPORTUNITIES TO INTERACT WITHOUT AN ADULT PRESENT. NOW SHE SPENDS TIME IN A MIXED GROUP. OTHER STUDENTS COME UP TO SALLY AND INCLUDE HER IN THE ACTIVITIES.

A fourth misconception is the idea that the class schedule should be identical to catagories of objectives (e.g. motor, communication) or to the IEP. Thus, skills rather than activities are listed on the schedule, such as "vision time". In an activity-oriented approach, however, scheduling reflects activities. Skills are individualized and embedded within those activities.

FOR EXAMPLE, MARK'S TEACHER USED TO PREPARE HER SCHEDULE TO SHOW IEP SKILLS:

8:30 ARRIVAL
9:00 SPEECH THERAPY
9:30 IEP GOALS
10:00 VISION STIMULATION
10:30 MOTOR

USING AN ACTIVITY-ORIENTED APPROACH, HIS TEACHER SET UP THE SCHEDULE TO REFLECT ACTIVITIES:

8:30 ARRIVAL/GREETING FRIENDS
9:00 PREPARING AND EATING BREAKFAST SNACK (DOMESTIC)
9:30 CLEAN-UP (DOMESTIC)
10:00 JOBS AROUND SCHOOL (VOCATIONAL)
10:45 GYM WITH REGULAR CLASS (RECREATION/LEISURE)

A final misconception has to do with the role of related services personnel (speech pathologist, physical or occupational therapist, vision consultant, etc.). In activity-oriented programing, these personnel take part in the activity rather than taking the student to a separate room. In this way, they can observe the student in a natural setting, model appropriate techniques for the classroom staff, and monitor use of skills in real activities where the student needs to perform.

MARK RECEIVES SERVICES FROM THE SPEECH PATHOLOGIST TWICE A WEEK. HOWEVER, HE DOES NOT USUALLY GO TO A SPEECH ROOM. MRS. JONES COMES ALONG ON ONE OF HIS ACTIVITIES DURING THE TIME SHE PROVIDES SERVICES. SHE STUDIES WHAT CUES HE NEEDS TO UNDERSTAND IN THE ACTIVITY AND HOW THESE ARE PRESENTED TO HIM. SHE ALSO LOOKS AT HOW HE CAN EXPRESS HIMSELF MORE CLEARLY DURING THE ACTIVITY. DEPENDING UPON THE DAY, MRS. JONES COMES TO MARK'S CLASS, GOES TO THE CAFETERIA DURING HIS SCHOOL JOB, OR GOES TO THE COMMUNITY POOL WITH MARK AND OTHERS IN HIS CLASS.

ADVANTAGES OF ACTIVITY-ORIENTED PROGRAMMING

The use of activity-oriented programming has many advantages, with emerging research to support the following claims:

* Children with severe handicaps are actively involved and expected to participate in activities, which facilitates a positive self-image as well as respect from others;

* Children with severe handicaps are integrated into family, classroom, school work, and community activities rather than isolated or segregated;

* Experiences in real activities and settings prepare the student for inclusion in society as a competent adult;

* Opportunities to use basic skills,such as communication, can be provided throughout the day across a variety of settings;

* Skills are practiced much more frequently than is typical in a traditional approach;

* Generalization of basic skills in different situations with different people is enhanced;

* Real activities and materials motivate children with severe handicaps more than do simulated and traditional activities typically used in "sensory stimulation";

* Active participation in real and meaningful activities may prevent the development of passivity and the "learned helplessness" syndrome;

* Real activities motivate teachers, parents and caregivers and may avert "burnout";

* Students with severe handicaps are provided individualized instruction in small group activites. Such small group instruction is often more easily accomplished if the skill levels of the children in the group are heterogenous;

* Children with severe handicaps receive more instructional time in a small group. If all instruction is one-to-one, children spend most time waiting for a turn to be involved in a one-to-one session;

* Activities which are meaningful and interactive may avert the increase of inappropriate behavior (e.g. non-compliance, attention-getting) due to boredom and frustration;

* Activity-oriented programming can facilitate: integration in regular classes, reverse mainstreaming (bringing non-handicapped students into the special education class), and peer tutoring programs because non-handicapped peers typically feel more comfortable interacting with students with severe handicaps during normal activities.

ASSESSMENT AND PROGRAM PLANNING FOR CHILDREN WITH SEVERE HANDICAPS

PROBLEMS IN ASSESSMENT

For children with severe handicaps, standardized, norm-referenced assessments provide a limited amount of information on which to make programming decisions. Such tools frequently do not make provision for evaluating students with associated motor, sensory and/or health problems, and students with severe handicaps perform well below the norm. Consequently, these tools only serve to verify that a problem exists and do little to enhance instructional decisions. Therefore, standardized, norm-referenced assessment should be used primarily to determine eligibility for services, not to plan educational programs.

Developmental tests frequently are used with students with severe handicaps. A "mental age" is often obtained and then used for targeting skills to be taught. However, these tests are inappropriate for program planning. First, developmental tests generally evaluate skills performed by typical children up to the age of six years. Therefore, they fail to provide for a sample of activities which are age-appropriate for children and youth above age five.

Second, these tests often evaluate artificial and/or nonfunctional activities, such as stacking blocks and stringing beads, tasks which are used to assign a developmental age. Such activites do not provide students with skills that can be used to solve real-life problems or to perform activites with their nonhandicapped age-peers. Consequently, assessment of these items does not and should not lead to curriculum planning.

Rather than attempting to use standardized or developmental assessment for program planning, a functional assessment process is used with students with severe handicaps.

OVERVIEW OF FUNCTIONAL ASSESSMENT

For students with severe handicaps, the goal of education is maximum participation in real life activities, and the curricular approach is activity-oriented programming. Therefore, functional assessment is based on these principles and involves assessment of the student in real life activities to develop programs for improving the student's participation in these activities.

Assessment procedures useful for students with severe handicaps are generally informal and are based on interviews and observations. Families play an important role in this process. Information is gathered by all evaluation team members, including families, teachers and related services personnel (speech, physical, occupational therapists, vision and hearing specialists, etc.). The process of functional assessment includes the following steps:

* identification and selection of activities for the student;

* assessment of the student's current performance during those priority activities;

* development of the instructional plan to teach the basic skills the student needs to learn to use within the priority activities and ways to teach or adapt steps and materials in the priority activities to improve the student's performance.

IDENTIFICATION AND SELECTION OF ACTIVITIES

The first step in functional assessment is to identify and select priority activities. One component of this step is to identify student, parent and family priorities. This information is collected in part by a parent interview process. The interview includes information about current and future environments in which the student is expected to function. Typical questions for the interview include:

- Are there places you already take your child in which you know he or she needs instruction?
- Are there places you would like to take your child if he or she had a way to participate?
- What activities do you notice other neighborhood children doing who are your child's age?
- When you are not interacting with your child, what does he or she do? (Orelove and Sobsey, 1987)

In addition to parent interviews, a local catalogue is used as a basis for identifying possible activities. A catalogue contains lists of activities in which non-handicapped peers typically participate. Although the catalogue contains many possible activities, it needs to be individualized for each student.

Special consideration should be given to activities which provide opportunities for systematic interaction and integration with non-handicapped peers and opportunities for instruction in natural settings in the community (community-based instruction).

Priority activities are selected from the possibilities identified through the parent interview, the local catalogue, and considerations for integration and community instruction. The family should have a major role in selecting the priority activities to make sure that assessment and consequent instruction will have direct impact on the student's real life.

MARK'S TEACHER FIRST WORKED WITH MARK AND HIS FAMILY. THEY DISCUSSED MARK'S CURRENT LIFE AND THEIR HOPES AND DREAMS FOR HIM. THEY ALSO TALKED ABOUT HIS PREFERENCES. MARK'S TEACHER REVIEWED THE CATALOGUE WITH THE FAMILY, AND THEY TALKED ABOUT POSSIBLE ACTIVITIES LISTED THERE. FROM THIS INFORMATION, THE FAMILY AND TEACHER SELECTED SOME SPECIFIC ACTIVITIES IN WHICH MARK WOULD PARTICIPATE. ONE ACTIVITY WAS TO DO LAUNDRY.

ASSESSMENT OF PERFORMANCE IN THE ACTIVITIES

After the priority activities have been selected, the student is assessed during those specific activities to determine current skill level. This assessment is based on an **ECOLOGICAL** or **NON-HANDICAPPED PERSON INVENTORY.** A non-handicapped person inventory is simply the sequence of steps and skills used by a non-handicapped person in completing the activity.

Each of the members of the team observes and reviews the student's performance in the selected activities.

IN THE LAUNDRY ACTIVITY DESCRIBED PREVIOUSLY, THE PHYSICAL THERAPIST OBSERVED AND ASSESSED MARK FOR PROPER POSITIONING, USE OF MOBILITY, EQUIPMENT NEEDS AND SUCH AREAS THAT ENABLE MARK TO PARTICIPATE. THE SPEECH PATHOLOGIST ALSO ASSESSED MARK'S COMMUNICATION DURING THE LAUNDRY ACTIVITY, BOTH IN WHAT MARK NEEDS TO UNDERSTAND (RECEPTIVE COMPREHENSION) AND TO INDICATE CHOICES AND DESIRES (EXPRESSIVE COMMUNICATION).

Information from health care specialists, occupational and physical therapists, speech/language pathologists, parents and the classroom teacher is integrated into a comprehensive description of the student's current level of performance in the basic skills areas, based on observation during the functional activities.

DEVELOPMENT OF THE INSTRUCTIONAL PLAN

After the student's general performance in the activity is assessed, the selected activities are analyzed in depth to determine basic skill components needed to complete each activity. Members of the assessment team identify adaptations and modifications to increase the level of

independent participation by each student in the activities selected. They also provide suggestions for implementing basic skills instruction within the context of the activities in the natural setting. They may decide to eliminate steps that can be avoided, or identify steps that will always require assistance.

AFTER WORKING WITH MARK AT THE LAUNDRY, THE TEAM DECIDED THAT, DUE TO MARK'S PHYSICAL DISABILTIES, THEY WOULD NOT EXPECT HIM TO LIFT THE LAUNDRY CONTAINERS, EVEN WITH ADAPTATIONS. HOWEVER, THERE WERE ADAPTATIONS TO BE MADE FOR STARTING THE MACHINE, AND THEY WANTED TO WORK ON HIS MOTOR CONTROL (REACH, GRASP) IN THAT SETTING. PARTICULAR ATTENTION WAS PAID TO HOW MARK WOULD COMMUNICATE TO A HELPER WHAT HE WANTED THEM TO DO.

Based on this analysis, basic skills goals and objectives for instruction are selected for the IEP using information from all members of the assessment team, including the input of parents. Selection of skills for instruction is based on a number of factors, including, but not limited to the following:

1. Does the skill help to promote integration and/or social acceptance? Does the skill promote independence and choice-making? Is the skill enjoyable? Is it a student preference?

2. How often and in how many immediate and future environments and activities will the skill be used?

3. Is the skill functional? Age appropriate? Can it be taught in natural settings using real materials?

4. Is the skill necessary for health or physical reasons? Will it assist in preventing transfer to a more restrictive environment, or will it facilitate movement to a less restrictive environment?

5. Will the skill help to improve the student's quality of life? Is the skill a priority for the parents or caregivers?

MONITORING PROGRESS

Progress is monitored in several ways. Because the activities were selected in close cooperation with the student and the family, there is a greater likelihood of consumer satisfaction with the outcome. Measures of progress include:

* Specific IEP skills which are acquired and used across the activites.

* Amount of the student's participation in the activity (e.g. more steps completed independently, more steps in which the student participates).

* Number and range of activities in which the student participates (e.g. more activities in integrated settings, more activities in the community).

The information gathered to monitor the student's performance is then used to review and revise the IEP.

WHEN MARK'S ANNUAL IEP REVIEW MEETING IS HELD, HIS TEACHER SHOWS DATA ON HIS PROGRESS IN SPECIFIC SKILLS. THESE SKILLS WERE USED ACROSS ACTIVITIES. THE COMMITTEE ALSO LOOKS AT THE ACTIVITIES THEMSELVES, TO SEE HOW MANY MARK NOW PARTICIPATES IN. WITH THE PARENTS THE COMMITTEE IDENTIFIES ADDITIONAL ACTIVITIES FOR THE NEXT YEAR. SOME ACTIVITIES ARE NO LONGER APPROPRIATE BECAUSE HE IS OLDER AND HIS PEERS NO LONGER DO THESE ACTIVITIES EITHER. OTHER ACTIVITIES ARE NOT CONTINUED BECAUSE THEY ARE NO LONGER MARK'S PREFERENCES (HE WANTS TO DO NEW THINGS.) SOME ACTIVITIES ARE CONTINUED AND MARK IS WORKING ON INCREASED PARTICIPATION IN THESE.

It is not reasonable nor necessary to keep data on every student response during every activity. However, data collection on an on-going basis is essential. The information is needed for making informed decisions on whether to continue or modify instructional methods. In order to decide such issues as the level of prompt to use or the effectiveness of reinforcers, data over time is needed. Because students with severe handicaps often progress slowly, it may not be possible to detect significant patterns in performance or progress without ongoing data.

The type of data collection system to use and the frequency of collection are decisions that must be made on an individual basis. Simple methods for taking data can be developed. After practice, these methods can be used without disruption or distraction from the activity.

HOME/HOSPITAL PROGRAMMING

PLACEMENT DECISIONS

Most children with severe handicaps do not require home instruction. Even technology-dependent children (with tracheostomy tubes, gastrostomy tubes, suctioning equipment) can be served safely in the school setting. Kentucky Administrative Regulations state: **"Home instruction shall not be used as a substitute for a more appropriate educational placement for exceptional children"** (707 KAR, 1:055). Consideration must always be given to providing services in the least restrictive environment.

On occasion, however, the admissions and release committee may find that a child's current medical condition prevents or renders inadvisable attendance in a school-based program. Such a decision is based on valid medical reasons documented by signed medical statements. This placement decision applies only until the child is medically capable of returning to a less restrictive and more appropriate educational setting. In cases where a child with severe handicaps needs to be out temporarily during an illness or a hospital stay, home instruction can be provided temporarily as it would for any other student attending school.

PRINCIPLES

The principles which apply to educational programs for severe handicaps hold true for students placed in home or hospital programs. If a student cannot be transported to school or needs to be in the hospital, then the educational goal is to help the student participate maximally in the home or hospital, integrated into family activities and/or participating in hospital routines.

To develop a program for home or hospital based students with severe handicaps, first determine the normal activities and routines that make up the student's day. These routines become the context for basic skills instruction. Knowledge of the normal pattern of routines for a child is determined by asking parents or hospital staff to describe a typical daily schedule for the student. Activity plans are then developed to infuse or embed basic skills into the naturally-occuring events of the day.

FOR EXAMPLE, BILL HAS DIFFICULTY REGULATING HIS TEMPERATURE AND CONSEQUENTLY IS ILL IF HE GOES OUTSIDE. HIS HOME INSTRUCTION TEACHER HAS IDENTIFIED THAT HE NEEDS TO RESPOND TO VISUAL AND AUDITORY CUES, AND THE PHYSICAL THERAPIST HAS IDENTIFIED A NEED

TO MAINTAIN HIS RANGE OF MOTION AT HIS ELBOWS AND WRISTS. HIS MOTHER FEEDS, BATHES AND TOILETS HIM REGULARLY. THEREFORE, THE HOME INSTRUCTION TEACHER DEVELOPED TOILETING AND BATHING ROUTINES WHICH WILL PROVIDE OPPORTUNITIES TO USE THESE SKILLS. MEALTIME ROUTINES WERE ALSO DEVELOPED TO DEVELOP CHOICE-MAKING AND SOCIAL AWARENESS.

Each student receiving special health care is provided opportunities to anticipate events. The student can prepare for and respond to such daily routines as medications, baths, meals, blood tests or other sometimes painful medical procedures. For example, participation in personal care can include the student relaxing on cue or communicating preferred pace for a procedure.

ROLE OF THE TEACHER AS CONSULTANT

In the home or hospital setting, the teacher functions as a parent/staff advisor or consultant to help identify routines and facilitate the student's participation in daily life. The teacher assists in identifying family or typical age activities in which the child can participate. Due to special health care needs, most other attention on the student is focused on basic health and care-giving. The teacher helps deteremine how to involve the student in that care-giving as well as in leading as normalized a life as possible.

Biweekly visits to the home or hospital do not provide sufficient instructional opportunities for learning. Therefore, the focus is on involving parents, caregivers and staff in providing quality learning opportunities throughout the week. The teacher does not work directly with the student during the entire visit, but rather provides practice and consultation for parents and caregivers.

Using the embedded skill approach, the home instruction teacher helps the parent or staff increase learning opportunities without asking them to become a full-time teacher or therapist. The teacher practices a routine or activity with the parent/staff and works with them to develop easier and more respectful ways of handling the student. The teacher helps identify cues and provides feedback during routines.

Regular contact should be made with all caregivers to assure continuity between settings. This contact is particularly critical when the student is served in a non-home setting or where someone other than the parent provides care during the day (e.g. grandmother). For students with severe handicaps, the home instruction teacher has contact with all caregivers involved (parents, extended family, siblings) as

well as with other agencies also working with the family. Speech and physical therapy often are provided through other agencies, such as home/health or a hospital. The comprehensive care system may have a case manager or an in-home trainer working with the family.

FUNCTIONAL ASSESSMENT

Functional assessment within normal activities or routines is done with the parent/caregiver's active assistance. The caregiver and teacher jointly select activities and then develop goals that target basic skills. Topics may be selected for content instruction to parents/staff (e.g. hearing aid operation, catheterization, postural drainage).

Related services (OT, PT, Speech) are included at least on a consultation level. Ongoing assessment and demonstration of intervention techniques are done periodically in the home or hospital. Biweekly follow-up by the teacher and daily follow-up by the parent/caregiver during routines and functional activities also occurs.

COMPONENTS OF A HOME/HOSPITAL VISIT

Typical visit schedules should include the following components:

- greeting (meeting the family or staff regarding their routines and schedules);
- follow-up to the previous visit (review of family/staff/child situation and progress);
- parent/caregiver instruction on mutually identified topics, such as available resources to assist in meeting the child's special needs (e.g. medical, financial, respite, etc.).;
- demonstration of one or more activities with the child;
- practice with the caregiver to implement techniques;
- feedback to the caregiver and modifications made if needed;
- discussion of activities to focus on during the next week;
- closing.

BASIC SKILLS FOR STUDENTS WITH SEVERE HANDICAPS

Many teachers and related services personnel currently serving students with severe handicaps have received limited training in skills which are appropriate for these students. The following sections are designed to provide background information for teachers and others to facilitate participation in real activities by students with severe handicaps.

SENSORY SKILLS

Often students with severe handicaps have some degree of sensory impairment, whether hearing, vision or a combination of both. A number of syndromes, conditions, and medications typical with students with severe handicaps have accompanying sensory losses (e.g. hydrocephalus, seizure medications, cerebral palsy). Sensory losses, however, are not always identified in students with severe handicaps since difficulties in performance are attributed primarily to cognitive deficits.

A sensory impairment does not imply total loss of hearing or vision. Rather, there may be a lack of information or a distortion of information received thorugh the auditory or visual channels. Students with severe handicaps should be observed closely for sensory problems since these affect maximal participation in activities.

Hearing

The presence of a hearing impairment, particularly in combination with another handicapping condition, strongly suggests problems in acquiring and processing language. Interpreting and responding appropriately to social interactions are also problematic.

Two types of hearing loss may be present, either alone or in combination (referred to as a mixed hearing loss):

- conductive: problems with sound transmission occuring in the outer or middle ear, or
- sensorineural: problems occuring in the inner ear or the auditory processing channels in the brain.

A student may respond to voice and sound and still have a hearing impairment. Consequently, mild and moderate hearing losses are often not recognized. Children with severe handicaps often have temporary conductive losses due to frequent colds and congestion. Uncorrected, some conductive problems can lead to middle ear damage. Upright positioning for better drainage and proper health care are two special considerations for such students.

MARK HAS BEEN PREVIOUSLY DESCRIBED AS ENJOYING MUSIC. HE PREFERS COUNTRY SINGERS AND LIKES TO LISTEN TO TAPED STORIES. DESPITE THESE AUDITORY SKILLS, HE HAS BEEN IDENTIFIED AS HAVING A MODERATE HEARING IMPAIRMENT. CLUES WERE THAT HE PREFERRED MEN'S VOICES (LOWER PITCH), PREFERED THE VOLUME UP HIGH (AMPLIFICATION), AND HAD A HISTORY OF EAR INFECTIONS (OTITIS MEDIA).

Referral to an appropriate medical professional and/or audiologist is critical if hearing loss is suspected. The use of hearing aids is effective with students having severe handicaps if amplification is recommended. An attachment to this section includes further information on hearing impairments.

Regardless of the outcome of a hearing evaluation, it is important to stimulate residual hearing so students can respond to auditory cues which are part of natural activities.

For example, during home or school routines and community-based activities, the student is provided the opportunity to:

- anticipate an event from the natural environmental sound cue, such as the opening of the door;
- localize to the sound of a peer calling;
- respond to sounds as a natural cue during activities (e.g. fire alarms; verbal or vocal cues; appliances starting)

Suggestions for instructional adaptations and materials selection are obtained from a specialist in hearing losses. A speech pathologist can also assist by providing suggestions for augmented communication systems, such as tactual cueing systems, gestural or sign language, or the use of communicative aids (e.g. picture systems, switches and other technological aids).

Vision

Types of vision loss fall under several broad categories:

-refractive errors (nearsightedness, farsightedness, cataracts, etc.);
-muscle imbalance disorders (lazy eye, nystagmus-rapid movements, strabismus-out of alignment, etc.),
-field losses (tunnel vision, blind spots),
-cortical blindness (often used as a generic term, but technically a visual disorder involving the cortical pathway to the brain).

Vision disabilities occur freqently in the presence of congenital syndromes (e.g. Down Syndrome), in children who have incurred damage to the brain or central nervous system (e.g. children with cerebral palsy), and in children with motor impairments that affect the muscles used to focus the eyes. Loss of vison can impact the development of cognitive, motoric, social and communicative skills.

> MARK WAS ALSO DESCRIBED AS BEING VERY AWARE OF PEOPLE AND WATCHES THEM MOVE AROUND THE ROOM. HE ALSO LOOKS AT HIS CUP OR BOWL TO SIGNAL WHEN HE IS HUNGRY OR THIRSTY. DESPITE THESE VISUAL SKILLS, HIS DOCTOR HAS FOUND THAT HE IS VERY NEARSIGHTED (20/800) AND CAN SEE VERY LITTLE DETAIL. THIS LOSS IS DUE TO OPTIC ATROPHY AND CANNOT BE CORRECTED. MARK IS CONSIDERED LEGALLY BLIND (20/200 OR WORSE).

As with suspected hearing loss, a child with a suspected visual disorder is referred to a medical professional for testing. An attachment to this section contains a list of possible symptoms of vision loss and a checklist for functional vision observation in children with multiple handicaps.

Unless a child has been determined to have no possible vision (through congenital absence or surgical removal), training in vision use should be provided at critical moments when vision is needed during functional activities.

For example, during home or school routines and community activities, the student is provided opportunities to:

- make eye contact with a peer when guided to pass materials during an activity or in greeting;
- look during the critical moment to complete a step of an activity;
- use light from the doorway to orient to go outside;
- use brightly colored spots (contrast) as cues to locate materials.

A specialist in visual impairments can assist in completing a functional vision evaluation and in selecting and adapting materials to compensate for the vision loss. This specialist can also provide suggestions for incorporating the training of vision into functional activities as opposed to isolated vision stimulation.

Deaf-Blindness

Some children with severe handicaps may have a combination of vision and hearing losses, referred to as a dual sensory impairment. The student may also be labeled deaf-blind, under federal definitions. The term "deaf-blind" does not

mean that the student has total vision and hearing losses. Few individuals have total hearing and vision losses in isolation or in combination. For students with severe handicaps, even mild hearing and vision losses occuring together increase the probability of learning difficulties, particularly in the area of language and communication development. For federal reporting purposes, those students having both hearing and vision losses in combination are referred to as "deaf-blind".

Dual sensory impairments require modifications in the instructional program so the child can receive meaningful input from the environment. The instructional team maximizes input from the environment through the visual, auditory and tactile senses. Communication is a major difficulty for persons with dual sensory impairments. A total communication approach to language interactions with the student is usually most effective. This approach provides the child with natural and appropriate cues through the combined use of speech, gestures, touch or tactile cues and visual and auditory prompts.

EVEN THOUGH MARK HAS USABLE HEARING AND VISION, HE IS CONSIDERED TO HAVE A DUAL SENSORY IMPAIRMENT. MARK IS REPORTED ON FEDERAL COUNTS AS "DEAF-BLIND". HE RECEIVES SPECIAL CONSULTATION TO HELP ON HIS COMMUNICATION PROGRAM, AMONG OTHER AREAS. MARK IS NON-ORAL DUE TO MOTOR HANDICAPS, BUT HE HAS LEARNED TO SIGNAL WITH HIS EYES. HOWEVER, HE CANNOT USE A STANDARD PICTURE AUGMENTED SYSTEM BECAUSE HE CANNOT CLEARLY SEE THE PICTURE. ALTHOUGH HE RESPONDS TO VOICE, HE DOES NOT CLEARLY UNDERSTAND WORDS. THEREFORE, TACTUAL CUES ARE USED IN COMBINATION WITH WORDS TO COMMUNICATE WITH MARK.

Because of the severity of a dual sensory impairment, federal funding has been made available to states to provide consultation and technical assistance to local programs serving deaf-blind children. Contact for such assistance should be made through the Office of Education for Exceptional Children.

COMMUNICATION

Enhancing the development of social-communication skills for the student with severe handicaps is of primary importance. Communication intervention should be a part of all aspects of the instructional program.

For many children with a combination of severe handicapping conditions, attempts to communicate may be very subtle, such as changes in breathing rate, a cessation of activity, or an eyeblink. Other children who appear to exhibit aberrant or

maladaptive behaviors in certain situations may be using that behavior to express fear or apprehension, uncertainty, or perhaps a simple dislike for the activity or situation which induces the behavior.

All behavior by the student is considered communicative, and all children communicate in some way, even though sometimes not intentionally. These behaviors may be shaped into more conventional behaviors to allow the child to have some control over the environment. Children can be taught to use very basic behaviors to express wants, make choices, greet others, convey preferences and make comments on their environment.

WHEN MARK WAS YOUNGER, IT WAS VERY DIFFICULT TO TELL WHAT HE WANTED. HE DID NOT USE HIS VISION CONSISTENTLY TO LOOK AT THINGS. HOWEVER, WITH TRAINING, HE BEGAN TO GAZE AT ITEMS AND TO SHIFT HIS GAZE BETWEEN TWO ITEMS. NOW HE USES HIS EYE GAZE TO SIGNAL THAT HE WANTS WHAT HE IS LOOKING AT.

Communicative behaviors are one way the student can partially participate in home life, personal care, classroom routines and community activities. Learning to control the environment is particularly critical for the student with severe motor disabilities.

During an activity, opportunities are provided for the student to develop and use communication skills:

Receptive Communication
- use whole body cues to anticipate lunch;
- respond to a touch cue to raise arm during dressing;
- allow physical guidance in stirring the batter to cook;
- attend or respond to a gestured command to hang up coat;

Expressive Communication
- gain attention of classmate or teacher;
- signal to continue an enjoyable activity, such as swinging;
- select the color of the bowl to use during cooking;
- greet another student.

The instructional team works together to determine the most appropriate methods of communication for a particular student. Parents in particular are often the best source of information on how a student communicates. The occupational and physical therapist can assist in selecting motor patterns or responses within the physical capabilities of the student. These behaviors can be shaped to allow increased communication. The speech and language pathologist can help to identify appropriate assistive and adaptive communication aids.

All members of the team should agree on and use consistent methods for communicating with the student. Whenever possible, the use of natural cues, gestures and concrete objects can provide the student with a communication system easily understood and interpreted by others in the community. The means that the student uses for communication may be different across settings. At home, the family may be able to interpret sounds and body language easily enough due to familiarity. At school or in the community, additional methods might also be used, such as a picture system.

MOTOR SKILLS

Students with severe handicaps frequently have associated or concomitant motor problems which impede their ability to participate independently in many activities. For the student with physical disabilites, proper positioning and handling throughout all settings and activities are critical elements in the provision of services. Improper positioning and handling can counteract the benefits of physical therapy services. The occupational and physical therapist suggest adaptive and assistive equipment, ways to lift and transfer the student, and modifications to allow for increased participation by the student.

Activities to improve motor skills are taught in the context of functional activities, rather than in isolation in a therapy room. Individual sessions with the physical or occupational therapist should focus on designing intervention techniques through problem solving with the student. Subsequently, these techniques should be shared with others (teacher, family, speech pathologist). Generally, it is ineffective for a student with severe motor disabilities to receive motor therapy in a separate room or setting without a strong consultation component for the teacher and family. In an integrated therapy approach, the methods used to facilitate movement are carried over into natural settings and activities.

For example, during a classroom routine, personal care, or home activites, opportunities are provided for the student to:

- move arm to grab a needed item;
- maintain head control while watching a peer;
- maintain body alignment while sitting at a table;
- grasp the towel to use in the activity;
- maintain weight-bearing while washing dishes;
- relax on cue prior to touch to assist in dressing.

Physical and occupational therapists should observe the student during functional activities to determine

appropriate modifications and ways of incorporating therapeutic motor tasks to enhance active participation This observation may be directly in the setting or by videotape. All members of the instructional team are involved in planning and implementing appropriate community-based instructional activities.

SOCIAL/BEHAVIORAL SKILLS

Students with severe handicaps often have problems in developing social skills for reasons beyond the presence of motor or sensory impairments. Without frequent opportunities for integrated experiences with non-handicapped peers, the development of social skills is impaired. Use of toys and activities developed for much younger children further hinders the development of appropriate responses to social interactions.

An integrated environment (setting with non-handicapped peers) provides natural prompts, reinforcement and consequences which enhance participation in age-appropriate activities across a variety of settings. The social aspects of integration afford opportunities for each student to make choices and decisions leading to more normalized behavior. Participation in instructional activities in heterogeneous groupings (with non-handicapped peers and students with varies types of handicap) provides experiences and opportunities to model and learn appropriate behaviors.

Students with severe handicaps may exhibit inappropriate behaviors, such as aggression, self-stimulation or self-abuse. These behaviors may occur due to lack of communication skills, boredom, or inappropriate programming. The starting point to any behavioral intervention program is functional and individualized instruction, based on the principles of activity-oriented programming.

Given that the student is receiving functional programming, problem behaviors can best be addressed through implementation of a well-planned behavior intervention program. The communicative intent or "message-value" of the problem behavior must be considered. Intervention needs to address the function that the problem behavior serves for the student (e.g. gain attention). He or she can then be taught more appropriate behaviors. Intervention should not focus solely on eliminating a problem behavior without replacing it with more functional behavior.

Comprehensive analysis of the behavior in context is essential to improve performance and to maintain the individual's dignity and respect. It is the right of every student to be treated with respect. Use of aversives

(punishment in all forms) is not appropriate and does not teach the positive behaviors that the student will need. A non-aversive approach stressing positive behaviors increases the probability of more appropriate and independent behavior on the part of the student. Further detail and information can be found in the Office of Education for Exceptional Children's document, "Techniques for Discipline of Exceptional Children and Youth" (June 1987).

SYMPTOMS OF HEARING IMPAIRMENT

Children With Severe Handicaps -- Are They Using Their Hearing?

Medical History

1. Is there a history of earaches or ear infections in the child's records?
2. Does the child rub or pull at the ears?
3. Does the child have allergies or what appear to be chronic colds?
4. Does the outer ear and ear canal appear swollen or red? Is there a discharge from the child's ear?
5. Has the child had a disease (mumps, measles) accompanied by a high fever?
6. Do the parents say that they have wondered if the child has a hearing loss?
7. Breathe with his or her mouthe open?

Responses to Sound

Does the child..... (partial list)

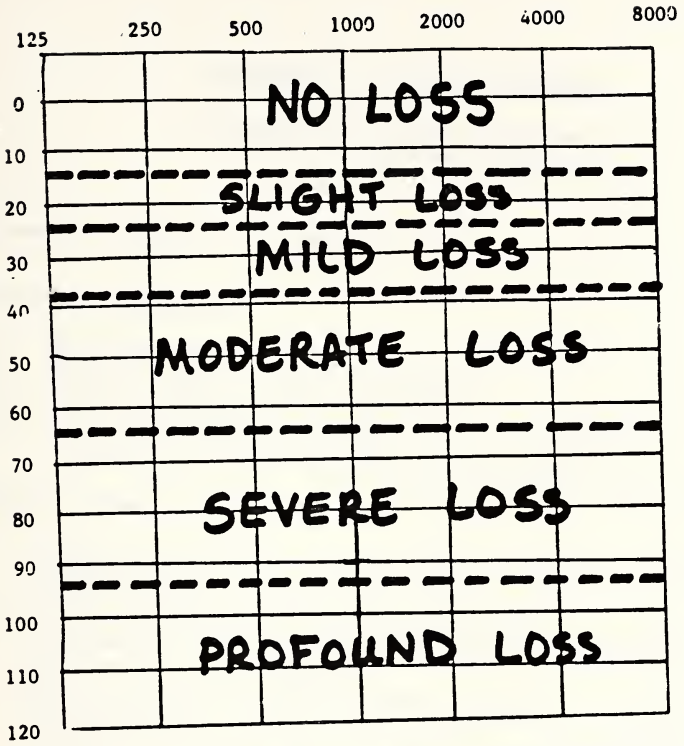
1. Respond to loud, unusual, or unexpected sounds?
2. Understand or respond to instructions or greetings when he/she doesn't see the speaker?
3. Does the child attempt to investigate sound sources nearby? At a distance?
4. Have difficulty finding the source of a sound?
5. Enjoy music (records, radio, television)?
6. Appear to discriminate between gross sounds?
7. Indicate awareness of sounds produced at various pitches intensities?
8. Respond to sounds consistently?

Communication

Does the child..... (partial list)

1. Make a variety of sounds?
2. Express pleasure by making sounds? Seem to "talk" to people around him?
3. Use her voice to get attention? Show unhappiness? Show enthusiam?
4. Respond more readily to gestures than to verbal requests or interactions?
5. Have a short attention span? Frequently seem restless?
6. Watch other children before beginning an activity even after verbal instructions have been given?

Frequency in Cycles Per Second *



(* Hearing levels are referenced to the ANSI (1969) scale.)

DTA (dB)	Degree of handicap
-10 - 15	None
16 - 25	Slight
26 - 40	Mild
41 - 65	Moderate
66 - 95	Severe
<96	Profound

Other Considerations:

1) Persistent/untreated conductive auditory involvement related to multiple ear infections, allergies, or other

2) Severe central auditory disorder

3) Aphasia

SYMPTOMS OF VISUAL IMPAIRMENT

Children With Severe Handicaps -- Are They Using Their Vision?

Does the child ..... (partial list)

Movement Patterns:

1. Move with ease and speed?
2. Exhibit smooth range of movement?
3. Shuffle the feet when walking?
4. Walk with head held downward or to the side?
5. Consistently avoid or bump into objects? (waist high, only on one side &/or below knee level)

Sensory Responses:

1. Exhibit different behaviors such as light gazing or finger flicking?
2. Bring objects to mouth for exploration?
3. Primarily explore objects with hands or fingers?
4. Demonstrate an awareness of sounds? Attempt to locate sources of sound visually?
5. Need to touch an object before naming or indicating recognition?
6. Respond to objects only from a certain direction or location in relation to the eyes?
7. Respond more readily to certain colors or to shiny objects?
8. Over or under reach or reach to the side of objects.

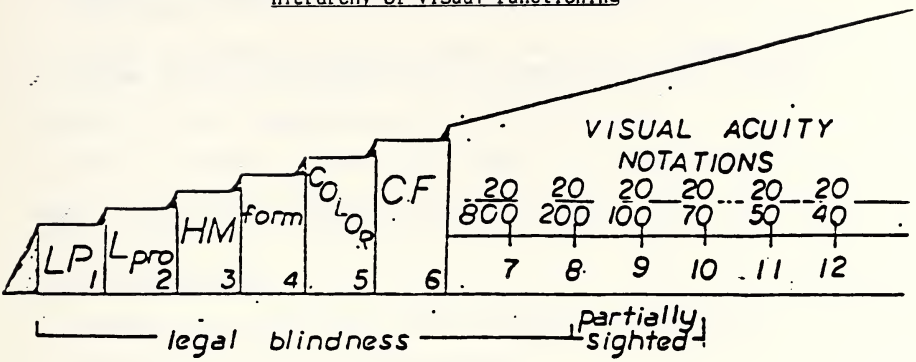
Postural Responses:

1. Exhibit neck &/or facial straining?
2. Demonstrate head tilt?
3. Show compensatory body movements?
4. Show squinting behavior or cover or close one eye when viewing objects?
5. Exhibit head movements when examining objects?

Behavioral Responses:

1. Poke, press, or rub the eyes?
2. Lose interest, tire easily, or show a short attention span for near-vision tasks?
3. Become quiet or cease movements when sounds are presented?
4. Make eye contact with you?

Hierarchy of Visual Functioning



1. Light perception. Ability to visually discriminate light and the absence of light.

2. Light projection. Ability to visually discriminate light and absence of light and additionally visually localize the source of light.

3. Hand movement or motion sense. Ability to visually recognize motion.

4. Form vision. Ability to visually recognize form or the outline of matter.

5. Color vision. Ability to visually recognize differences and similarities in colors.

6. Count fingers. Ability to visually recognize objects as distinct entities.

7. 20/800. Commonly referred to as travel vision or that amount of vision that is sufficient for independent travel. Travel vision is a misleading and nondescriptive term and is no longer widely used as in the past.

8. 20/200. Legal blindness arbitrary delineation. Defined as:
   a. Visual acuity being no better than 20/200 in the better eye after correction, or
   b. Visual field no larger than 20 degrees.

9. 20/200. Can read print used in children's books.

10. 20/70. Arbitrary delineation for partially sighted. This is after best possible correction. (Testbook discrimination)

11. 20/50. Individual with this acuity can read newsprint but with difficulty.

12. 20/40. Individual can read telephone book print. This acuity or better is required by most states for operation of motor vehicles.

13. 20/30. Able to discriminate print used in want ads.

14. 20/20. Arbitrary delineation for "normal" or standard vision.

Note: An individual with 20/100 acuity, for example, can see at 20 feet what one with "normal" vision can see at 100 feet.

Other Considerations:

1. Excessive self-stimulatory which precludes the use of vision

2. Progressive visual involvement/disorder

3/88

RELATIONS BETWEEN HEARING LEVEL IN DECIBELS

SEVERITY OF HANDICAP AND PROBABLE NEEDS

Hearing Level in Decibels	Severity of Handicap	Probable Handicap and Needs
0 to 20	Normal	Usually of no handicap, but may be of educational significance in the upper range of normal.
21 to 35	Mild	Has difficulty hearing faint speech. May benefit from amplification.
36 to 55	Moderate	Able to hear conversational speech at 3 to 5 feet; needs hearing aid, auditory training, speech and language intervention.
56 to 70	Moderate-Severe	Able to hear conversational speech only with great difficulty. Requires all of the above.
71 to 90	Severe	May hear loud voice at about one foot; may identify environmental noises; may distinguish vowels but not consonants; needs amplification and services as outlined above.
91 plus	Profound	May hear some loud sounds, but may not rely on hearing as a primary channel for communication. Services as outlined above; may also be considered a potential candidate for total communication.

Average of hearing levels for 500, 1000, and 2000 Hz.

Adapted from: Sweitzer, R.S. Audiologic evaluation of the infant and young child. In B.F. Jaffe (Ed.), Hearing loss in children. Baltimore: University Park Press, 1976.

Note. From Assessment of Auditory Functioning of Deaf-Blind/Multihandicapped Children (p. 71) by D. Kukla and T.T. Connolly, 1978, Dallas: South Central Regional Center for Services to Deaf-Blind Children. Copyright 1978 by D. Kukla and T.T. Connolly. Reprinted by permission.